REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Claims 1-33 are pending. Claims 1-7, 16-19 and 21-29 have been rejected. Claims 30-33 are allowed. Claims 8-15 and 20 have been objected to.

Claims 1, 7, 9, 12, 13, and 19 have been amended. Claims 8 and 20 have been canceled. No claims have been added. Support for the amendments is found in the specification, the drawings, and in the claims as originally filed. Applicants submit that the amendments do not add new matter.

Applicants reserve all rights with respect to the applicability of the Doctrine of Equivalents.

Claims 1-7, 16-19 and 21-29 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,920,414 to Miyachi et al. ("Miyachi") in view of U.S. Patent No. 6,304,350 to Doerr et al. ("Doerr") or U.S. Publication No. US2003/0095736 to Kish, Jr. ("Kish").

Amended claim 1 reads as follows:

> An apparatus comprising:
>
> a wavelength tracking component to determine a difference between transmission band of wavelengths of a first multiplexer/demultiplexer and a second multiplexer/demultiplexer in order to provide a control signal to match the transmission band of wavelengths of the first multiplexer/demultiplexer and the second multiplexer/demultiplexer, wherein the first multiplexer/demultiplexer is located in a first location and the second multiplexer/demultiplexer is located in a second location remote from the first location, <u>wherein the first multiplexer/demultiplexer receives a first optical signal containing a first band of wavelengths; the second multiplexer/demultiplexer receives a second optical signal containing a second band of wavelengths; and wherein the wavelength tracking component determines the difference based on measuring an optical power of a third optical signal containing the second band of wavelengths after passing through the first multiplexer/demultiplexer</u>; and
>
> a transmission wavelength controller to alter an operational parameter of the first multiplexer/demultiplexer based on the control signal to control the transmission band of wavelengths of the first multiplexer/demultiplexer.

(emphasis added)

It is respectfully submitted that Miyachi does not teach or suggest a combination with Doerr or Kish, and Doerr or Kish does not teach or suggest a combination with Miyachi. It would be impermissible hindsight, based on applicants' own disclosure, to combine Miyachi with Doerr or Kish.

The Examiner acknowledged that "Miyachi... fails to ...teach a multiplexer /demultiplexer...."(Office Action, p. 3, 12/31/07).

Miyachi discloses a wavelength division multiplexing optical transmission apparatus and optical repeater. More specifically, Miyachi discloses that:

> ...when a microprocessor 120 has determined that the wavelengths of more than a specified number of those of all the semiconductor lasers 111.sub.1, 111.sub.2, . . . , 111.sub.N, for example, more than half of them, should be shifted simultaneously in the same direction (in the direction toward either the long wavelength side of the short wavelength side), the microprocessor 120 considers that an abnormality has occurred in the optical wavelength multiplexer 110, that is, the transmission wavelength characteristic has deviated, not that the wavelengths of the semiconductor lasers 111.sub.1, 111.sub.2, . . . , 111.sub.N have deviated, and causes an alarm generator 135 to raise the alarm. Additionally, when the abnormality has occurred in the multiplexer, the microprocessor 120 outputs a control signal so as to adjust the wavelength characteristic of the optical wavelength multiplexer 110. The wavelength characteristic of the optical wavelength multiplexer 110 is adjusted by controlling the temperature.

(Miyachi, col. 19, line 57-col. 20, line 7, Figure 19)(emphasis added)

Thus, Miyachi discloses monitoring the power from the lasers that passes through the multiplexer to detemine the abnormalities in the multiplexer.

Doerr, in contrast, discloses a temperature compensated multichannel, wavelength-division-multiplexed passive optical network. More specifically, Doerr discloses that:

> ...the frequencies (or wavelengths) generated by MFL 111 vary with temperature. A temperature control unit 112 located at CO 101 controls the temperature of MFL 111. A receiver 113 detects RN power data received over a communication facility from RN 103. The processor 114 processes the RN power data from the receiver 113 and sends appropriate control signals to temperature control unit 112 to control the operating temperature of MFL 111. The power meter 115 monitors the power level of the frequencies generated by MFL 111 and sends information to processor 114 which adjusts each amplifiers (602.1-602.16 of FIG. 6) dc bias current through multiple current source 116.

(Doerr, col. 3, lines 55-67)(emphasis added)

Thus, Doerr discloses monitoring the power from the multifrequency laser received at the remote node control the operating temperature of the multifrequency laser.

Kish, in contrast, discloses a transmitter photonic integrated circuit chip (TXPIC) architectures and drive systems and wavelength stabilization for TXPIC. More specifically, Kish discloses the following:

> DFB laser sources 12(1) . . . 12(N) are optionally coupled to inputs of optical multiplexer 16 via passive waveguides 20(1) . . . 20(N) formed in TxPIC chip 10. ... Monitor 28 may detect the power levels of the multiplexed signals and/or examine the wavelength spectrum of the signals and their spectral characteristics. ... The signal information from monitor 28 is provided as an input to wavelength control system 30 which comprises a controller microprocessor and associated memory 32 for receiving, monitoring and determining from each of the detected signal wavelengths variations from a reference or nominal and desired wavelength stored in memory 32. ...In particular, wavelength control system 30 provides two different temperature control signals, respectively, to temperature changing elements 14 of DFB laser sources 12 ...and to temperature changing element 18 of optical multiplexer 16 ...

(Kish, paragraphs [0129]-[0131]) (emphasis added).

Thus, Kish discloses monitoring the optical power of the multiplexed signals from the laser sources to control the DFB lasers and the multiplexer.

Furthermore, even if the WDM optical transmission apparatus of Miyachi were incorporated into the passive optical network of Doerr or photonic integrated circuit of Kish, such a combination would still lack a wavelength tracking component to determine a difference between transmission band of wavelengths of a first multiplexer/demultiplexer and a second multiplexer/demultiplexer in order to provide a control signal to match the transmission band of wavelengths of the first multiplexer/demultiplexer and the second multiplexer/demultiplexer, wherein the first multiplexer/demultiplexer is located in a first location and the second multiplexer/demultiplexer is located in a second location remote from the first location, wherein the first multiplexer/demultiplexer receives a first optical signal containing a first band of

wavelengths; the second multiplexer/demultiplexer receives a second optical signal containing a second band of wavelengths; and wherein the wavelength tracking component determines the difference based on measuring an optical power of a third optical signal containing the second band of wavelengths after passing through the first multiplexer/demultiplexer, as recited in amended claim 1.

Therefore, applicants respectfully submit that amended claim 1 is not obvious under 35 U.S.C. § 103(a) over Miyachi in view of Doerr or Kish.

Given that claims 2-6 depend from amended claim1, and add additional limitations, applicants respectfully submit that claims 2-6 are not obvious under 35 U.S.C. § 103(a) over Miyachi in view of Doerr or Kish.

Applicants have amended independent claim 7 to include substantially all limitations of claim 8. The Examiner indicated that claim 8 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Therefore, applicants respectfully submit that claim 7, as amended, is now allowable.

Applicants have canceled claim 8.

Applicants have amended claim 19 to include substantially all limitations of claim 20. The Examiner indicated that claim 20 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Therefore, applicants respectfully submit that claim 19, as amended, is now allowable.

Applicants have canceled claim 20.

Given that claims 21-29 depend from amended claim 19, and add additional limitations, applicants respectfully submit that claims 21-29 are now allowable.

The Examiner stated that claims 8-15 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants have amended independent claim 7 to include substantially all limitations of claim 8. Applicants have canceled claim 8.

Therefore, applicants respectfully submit that claim 7, as amended, is now allowable.

Applicants have amended independent claim 19 to include substantially all limitations of claim 20. Applicants have canceled claim 20.

Therefore, applicants respectfully submit that claim 19, as amended, is now allowable.

Applicants acknowledge with appreciation the Examiner's allowance of claims 30-33.

It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome.

If there are any additional charges, please charge Deposit Account No. 022666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 04/25/2008 By: /Tatiana Rossin/

Tatiana Rossin
Reg. No. 56,833

1279 Oakmead Parkway
Sunnyvale, California 94085-4040
(408) 720-8300
Fax No. (408) 720-8383

Customer No. 008791